



Year 2012
Air Quality Division

ANNUAL AIR EMISSIONS INVENTORY QUESTIONNAIRE

Air Curtain Incinerator

The 2012 Air Curtain Incinerator Annual Emissions Inventory Questionnaire includes 4 forms that are required to be completed and submitted to the Air Quality Division. Instructions for each form are included below. Upon completion, submit all forms along with the signature by the Responsible Official of the facility within 90 days of receipt of a letter from the Department to the address below.

FORM 1: Facility General Information

Complete all fields as requested.

FORM 2: Equipment & Location Data

Table 1: List all equipment information relating to the air curtain incinerator, that is operated at the facility.

Table 2: If the portable equipment was moved from one location to another, list the dates, the cities & counties, the latitude & longitude or address/driving directions for the portable equipment that was operated during the year 2012.

FORM 3: Emissions Data

Input the process rate for each air curtain incinerator unit in tons/year. To calculate the emission, take the process rate multiply by pollutant emission factor and divide by 2000. Input the internal combustion engine's horsepower and hours of operation during the calendar year 2012. To calculate the emissions, take the horsepower multiply by hours operated, multiply by pollutant emission factor, and divide by 2000. **Input all calculation results in the appropriate spaces provided in the form.** A sample of the calculations are provided at the bottom of Form 2.

FORM 4: Summary & Certification

A summarization of all the emissions by each pollutant will be listed within this form. All reports submitted to the Department should be certified true and accurate by the Responsible Official of the facility. This person is the owner or operator of the facility. **If there is a change of the Responsible Official of the facility, please notify the Department with an additional letter stating the change.**

If you have any question or have difficulty completing this form, please contact Darlene Celaya at (602) 771-7662.

Remember to make photocopies of the completed questionnaire prior to mailing for your records/reference. Please mail the emission inventory questionnaire form to the following address:

Arizona Department of Environmental Quality
Attention: Darlene Celaya, Emission Inventory Team
Air Quality Division, SIP Section 3415A-3
1110 West Washington Street
Phoenix, AZ 85007

FORM 1: FACILITY GENERAL INFORMATION **YEAR 2012**

SECTION I: Plant Identification & Mailing Information

Company Name: _____

Place Name: _____ Place ID #: _____

Mailing Address: _____ City: _____ State: _____

County: _____ Zip Code: _____

Phone: _____ Fax: _____

Permit # or LTF #: _____ General Permit: Yes No

SECTION II: Emissions Inventory Contact

Name: _____ Title: _____

Phone: _____ Fax: _____

E-mail Address: _____

SECTION III: Confidential Request

Pursuant to Arizona Revised Statutes §49-432 and §49-201, do you claim the Emissions Inventory data submittal confidential. Yes No

If yes include which portions of the inventory are confidential along with a brief explanation:

FORM 2: EQUIPMENT, STACK & LOCATION DATA

YEAR 2012

Table 1: Equipment List

Equipment Type	Equipment ID	ATO #	Max. Rated Capacity	Amount Processed	Hours Operated

Table 2: Operation Location

Date		City & County of Operation	Latitude	Longitude	Address or Driving Directions
From	To				

For a internal combustion engine the maximum rated capacity is 400hp and using Gasoline fuel and operated for 1500 hours during the year 2012, the emissions of Nitrogen Oxides (NOx) will be as follows:

$$\text{Emissions} = \frac{400 \text{ hp} \times 1500 \text{ hours} \times 0.011 \text{ pounds per hp-hr}}{2000 \text{ pounds per ton}} = 3.3 \text{ tons per year}$$

FORM 3: EMISSIONS CALCULATIONS YEAR 2012

	Processes Rate ton/year	Pollutants	Emission Factor pounds/ton	Emissions tons/year
Air Curtain Destructors - Unit 1		PM	0.238	
		PM 10	0.238	
		CO	2.22	
		Nox	2	
		SO2	0.1	
		VOC	3.8	
Air Curtain Destructors - Unit 2		PM	0.238	
		PM 10	0.238	
		CO	2.22	
		Nox	2	
		SO2	0.1	
		VOC	3.8	

Internal Combustion Engine	FUEL - DIESEL			
	Engine #1		Engine #2	
	Max. Capacity (HP)	Operational Hours (hours/year)	Max. Capacity (HP) (4)	Operational Hours (hours/year) (5)
Pollutants	Emission Factor pounds/np-nour	Emissions tons/year	Emission Factor pounds/np-hour	Emissions tons/year
Particulate Matter (PM)	0.0022	0.0000	0.0022	0.0000
Particulate Matter Less Than 10 Microns (PM10)	0.0022	0.0000	0.0022	0.0000
Nitrogen Oxides (NOx)	0.0310	0.0000	0.0310	0.0000
Sulfur Oxides (SOx)	0.0021	0.0000	0.0021	0.0000
Volate Organic Compounds (VOC)	0.0025	0.0000	0.0025	0.0000
Carbon Monoxide (CO)	0.0067	0.0000	0.0067	0.0000
Acenaphthene	9.94E-09	0.00E+00	9.94E-09	0.00E+00
Acenaphthylene	3.54E-08	0.00E+00	3.54E-08	0.00E+00
Acetaldehyde	5.37E-06	0.00E+00	5.37E-06	0.00E+00
Acrolein	6.48E-07	0.00E+00	6.48E-07	0.00E+00
Anthracene	1.31E-08	0.00E+00	1.31E-08	0.00E+00
Benzene	6.53E-06	0.00E+00	6.53E-06	0.00E+00
Benzo(a)anthracene	1.18E-08	0.00E+00	1.18E-08	0.00E+00
Benzo(a)pyrene	1.32E-09	0.00E+00	1.32E-09	0.00E+00
Benzo(b)fluoranthene	6.94E-10	0.00E+00	6.94E-10	0.00E+00
Benzo(g,h,i)perylene	3.42E-09	0.00E+00	3.42E-09	0.00E+00
Benzo(k)fluoranthene	1.09E-09	0.00E+00	1.09E-09	0.00E+00
1,3-Butadiene	2.74E-07	0.00E+00	2.74E-07	0.00E+00
Chrysene	2.47E-09	0.00E+00	2.47E-09	0.00E+00
Dibenz(a,h)anthracene	4.08E-09	0.00E+00	4.08E-09	0.00E+00
Fluoranthene	5.33E-08	0.00E+00	5.33E-08	0.00E+00
Fluorene	2.04E-07	0.00E+00	2.04E-07	0.00E+00
Formaldehyde	8.26E-06	0.00E+00	8.26E-06	0.00E+00
Indeno(1,2,3-cd)pyrene	2.63E-09	0.00E+00	2.63E-09	0.00E+00
Naphthalene	5.94E-07	0.00E+00	5.94E-07	0.00E+00
Phenanthrene	2.06E-07	0.00E+00	2.06E-07	0.00E+00
Propylene	1.81E-05	0.00E+00	1.81E-05	0.00E+00
Pyrene	3.35E-08	0.00E+00	3.35E-08	0.00E+00
Toluene	2.86E-06	0.00E+00	2.86E-06	0.00E+00
Xylene	2.00E-06	0.00E+00	2.00E-06	0.00E+00

All the emissions for each pollutant are totalled and entered in the table below.

Pollutant	Tonnage (tons per year)
Particulate Matter (PM)	
Particulate Matter Less Than 10 Microns (PM10)	
Nitrogen Oxides (NOx)	
Sulfur Oxides (SOx)	
Volate Organic Compounds (VOC)	
Carbon Monoxide (CO)	
Hazard Air Pollutants (HAPs)	

Certification of Truth & Accuracy

I certify that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. All information not identified by me as confidential in nature shall be treated by the Arizona Department of Environmental Quality as public record.

Date:

Signature of Responsible Official:

Print Name:

Title:
